

TRANSPORTATION

TRANSPORTABILITY

- a. Artillery weapons are classified according to their method of transport.
 - (1) Towed—Cannons and launchers which are mounted on a carriage to be moved as a trailed (transported) load by a prime mover. A towed carriage contains no power source.
 - (2) Self-propelled (SP)—Cannons and launchers which are permanently installed on vehicles which provide automotive power for the vehicle and the weapon.
- b. Artillery weapons are also classified according to methods of transportation which can be used to deliver the weapon to a combat area. All artillery weapons can be transported by road, rail, or ship. Classification according to methods of aerial transportation are as follows:
 - (1) Helicopter transportable—Weapons which can be carried rotary wing aircraft and landed in sufficient assembly to permit immediate employment.
 - (2) Air transportable, see paragraph 3, AR 705-35.
 - (a) **Phase I (parachute and assault landing).** Assault landing aircraft must be capable of land on unprepared surfaces and minimum criteria airstrip in territory not held by friendly forces. All artillery must be capable of **immediate** effective employment.
 - (b) **Phase II (initial air landing).** Artillery normally moved in this phase are the followup elements of those units participating in phase I. These artillery must be air transportable in aircraft capable of landing on minimum criteria airlanding facilities held by friendly forces. All artillery should be capable of effective employment within **1 hour** after delivery.
 - (c) **Phase III (heavy air landing).** Artillery normally moved in this phase are followup elements of those units participating in phases I and II. These artillery must be air transportable in aircraft capable of landing on prepared air landing facilities held by friendly forces. It is desirable that all artillery be capable of effective employment within **6 hours** after delivery.

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IIIA. WHEELED VEHICLES

Vehicle	Purpose	Curb Weight fully equipped less payload & crew (lbs) (1)	Payload (HWY) (lb)	Pay load (cross country lbs)	Max allowable speed (MPH)	Cruise Range (miles)	Fuel Cap (gal)	Fording depth w/kit (inches)	Air Trans Phase; Craft	Ref Tech Manual		
Truck 1/4-ton M38A1	Utility	2,665	1,200	800	55	280	17 gasoline	70	37.5	I	C-130	TM 9-8014
M151A1	Utility	2,273	1,200	800	66	300	17.7 gasoline	60	21	I	C-130	TM 9-2320-218-10
M170	Ambulance	2,963	3 litter or 5 seated patients		60	268	20 gasoline	70	36	I	C-130	TM 9-8014
3/4-ton M37B1	Cargo	5,950	2,000	1,500	55	225	24 gas	84	42	I	C-130	TM 9-8030
M43	Ambulance	7,150	4 litter or 8 seated patients		55	225	24 gas	84	42	I	C-130	TM 9-8030
1/2-ton M274	Carrier Lt WPN's	925	1,000	1,000	25	100	8 gas	NA	18	I	C-130	TM 9-2320-213
2 1/2-ton M34	Cargo	12,186	10,000	5,000	62	300	50 gas	72	30	I	C-130	TM 9-8022
M35	Cargo	12,880	10,000	5,000	58	300	50 gas	72	30	I	C-130	TM 9-8022
M35A1	Cargo	13,443	10,000	5,000	58	500	50 diesel	NA	30	I	C-130	TM 9-2320-235-10
M36	Cargo	14,640	10,000	5,000	58	300	50 gas	72	30	I	C-130	TM 9-2320-235-10
M135	Cargo	12,500	10,000	5,000	58	350	56 gas	78	30	I	C-130	TM 9-8024
M211	Cargo	13,580	10,000	5,000	58	300	50 gas	72	30	I	C-130	TM 9-8024
M49C	Fuel tanker	13,895	7,500	5,000	58	300	50 gas	72	30	I	C-130	TM 9-8022
M217C	Fuel tanker	14,340	8,000	5,000	55	300	56 gas	80	30	I	C-130	TM 9-8024
M50	Water tanker	15,184	8,300	5,000	58	300	50 gas	72	40	I	C-130	TM 9-8022
M222	Water tanker	15,693	8,500	3,500	55	300	56 gas	80	30	I	C-130	TM 9-8024
M221	Truck tractor	12,105	12,000	7,000	55	300	56 gas	72	30	I	C-130	TM 9-1819 AA
M275	Truck tractor	11,590	12,000	7,000	58	350	50 gas	72	30	I	C-130	TM 9-8022
M109	Shop van	15,231	7,500	5,000	58	300	50 gas	72	30	III	C-130	TM 9-8023-1
M220	Shop van	15,085	7,500	5,000	55	300	56 gas	80	30	III	C-124A	TM 9-8024
M60	Light wrecker	23,960	3,500	1,500	58	300	50 gas	72	40	I	C-130	TM 9-8022
M108	Wrecker Crane	19,785	3,500	600	58	350	50 gas	72	40	I	C-130	TM 9-8022
M135	Set, searchlight	12,330	6,695	5,000	58	350	56 gas	78	30	I	C-130	
M292	Van, expansible	20,609	5,000	5,000	58	300	50 gas	72	40	III	C-124A	SNL G-742
5-ton M41	Cargo	19,835	15,000	10,000	59	280	78 gas	78	30	I	C-130	TM 9-2320-211-10
M54	Cargo	19,945	15,000	10,000	52	214	78 gas	78	30	I	C-130	TM 9-2320-211-10
M54A1	Cargo	20,523	20,000	10,000	54	400	78 diesel	78	30	I	C-130	TM 9-2320-211-10
M55	Cargo	24,064	20,000	10,000	52	221	78 gas	78	30	I	C-130	TM 9-2320-211-10
M52	Truck Tractor	18,813	25,000	10,000	50	300	110 gas	78	30	III	C-124A	TM 9-2320-211-10
M246	Truck Tractor Wrecker	32,830	16,000	12,000	50	230	78 gas	78	30	III	C-124A	TM 9-2320-211-10
M62	Wrecker	33,675	12,000	7,000	52	214	78 gas	78	30	III	C-124A	TM 9-2320-211-10
M543	Wrecker	34,400	12,000	7,000	52	217	78 gas	78	30	III	C-124A	TM 9-2320-211-10
10-ton M125	Cargo	30,000	35,000	20,000	43	30	220 gas	78	30	III	C-124A	TM 9-2320-206-12
M123	Tractor	32,250	35,000	21,000	42	300	166 gas	78	30	III	C-124A	TM 9-2320-206-12
M249	Gunlifting	37,950		53,675	40	165	140 gas	NA	60	III	C-133A	TM 9-8006
M250	Gunlifting	35,910		45,330	40	165	140 gas	NA	60	III	C-133A	TM 9-8006

IIIB. TRACK LAYING RECOVERY VEHICLES

M74	Recovery	89,000	Lift capax 50,000	Tow capax 90,000	21	100	168 gas	72	36	III	C-133A	TM 9-7402
M88	Recovery	108,000	50,000	82,500	31	222	425 gas	NA	64		NA	TM 9-2320-222-10
M578	Recovery	54,000	30,000	60,000	34	450	320 diesel	72	42	III	C-133A	TM 9-2320-238-10

IIIC. ARMORED PERSONNEL, CARGO, AND EQUIPMENT CARRIERS

M59	APC	39,504	NA	3,096	32	120	136 gas	Amphib		III	C-133A	TM 9-2300-203-12
M113	APC	20,000	NA	3,860	40	200	80 gas	Amphib		I	C-130	TM 9-2300-224-10
M113A1	APC	19,755	NA	2,260	40	300	95 diesel	Amphib		I	C-130	TM 9-2300-224-10
M114	APC-RECON	12,900	NA	1,849	34	300	110 gas	Amphib		I	C-130	TM 9-2320-224-10
M116	Cargo	7,800	NA	3,000	37	300	65 gas	Amphib		I	C-130	TM 9-2320-223-10
M577	CP-FDC	22,800	NA	1,100	35	200	120 gas	Amphib		III	C-124A	TM 9-2300-224-10
M577A1	CP-FDC	23,060	NA	1,200	42.5	400	123 diesel	Amphib		III	C-124A	TM 9-2300-224-10

IIID. SELF-PROPELLED WEAPONS

M44A1	155mm How	64,000	NA	NA	35	76	150 gas		42	III	C-133A	TM 9-2350-203-10
M52A1	105mm How	53,000	NA	NA	42	100	179 gas		48	III	C-133A	TM 9-7204
M107	175mm Gun	62,100	NA	NA	34	450	300 diesel		42	III	C-133A	TM 9-2300-216-10
M108	105mm How	46,221	NA	NA	35	220	135 diesel	Amphib w/kit		III	C-133A	TM 9-2350-217-10
M109	155mm How	52,461	NA	NA	35	220	135 diesel	Amphib w/kit		III	C-133A	TM 9-2350-217-10
M110	8-in How	58,500	NA	NA	34	450	300 diesel		42	III	C-133A	TM 9-2300-216-10

(1) Weight of self-propelled weapons is with full combat load.

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TABLE III.E. VEHICLES PECULIAR TO ROCKET AND MISSILE UNITS

Vehicle	Purpose	Curb Weight (pounds)	Payload (pounds)	Max Allow Speed (mph)	Cruise Range (miles)	Fuel Capacity (gal) and type	Water Crossing Cap.		Air Transportability Phase. Craft	
							With Kit	Without Kit		
XM474E2	Msl Equip carrier, PSG	11,900	12,000	38	200	85 gas	NA	42	II	C-115B
Launching Sta XM504	Launcher, Sergeant	16,800	NA	52	NA	NA	NA	30	II	C-130
OMTS or FMTS	Test Sta, Sergeant	15,000	NA	58	NA	NA	NA	30	II	C-130
Motor Guidance Transport Trailer	Missile Section Transporter, Sergeant	4,900	11,000	58	NA	NA	NA	30	II	C-130
XM667	SP Launcher, Lt, Lance	13,500	10,500	40	280	85 diesel	Amphibious		I	C-130
M572 2 1/2-ton M36	Rkt Hdlg Unit, LJ Rkt	15,155	10,000	58	300	50 gas	72	30	I	C-130
M289, 5-ton Chassis M139D	Launcher HJ Rkt	41,800	5,913	29	220	70 gas	60	30	III	C-133A
M386, 5-ton Chassis M139	Launcher HJ Rkt	34,250	5,913	59	224	70 gas	60	30	III	C-130A
M46, 5-ton Chassis M55	Heating & tie-down unit, HJ Rkt	24,264	20,000	52.6	214	78 gas	78	30	II	C-130

TABLE III.F. DEVELOPMENTAL SURFACE VEHICLES

XM561	Cargo, Personnel and weapon carrier	6,200	2,900 w/crew	50	Average 440	40 diesel	Amphibious	I	C-130
XM656 5-ton	Cargo truck	15,600	10,000	50	Highway 300	78 multi-fuel	Amphibious	Unk	Unk
XM520E1 8-ton GOER	Cargo	24,368	16,000	30	400	106 diesel	Amphibious	II	C-133A
XM559E1 8-ton GOER	Tanker	28,190	2,500 gal	31	400	106 diesel	Amphibious	II	C-133A
XM553 10-ton GOER	Wrecker	38,844	Tow 20,000 Boom Cap. 20,000	30.5	333	106 diesel	Amphibious	III	C-133A
XM548 6-ton Tracked	Cargo/Ammunition	14,450	12,000	38	300	105 diesel	Amphibious	II	C-130

NOTES:

Developmental vehicles considered for use in field artillery organizations.

Weight and performance data are approximated and subject to change during development.

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Figure 22. XM561

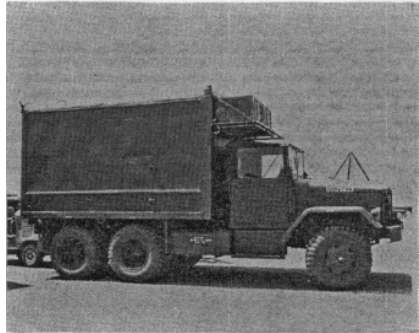


Figure 23. M109 2½-ton Shop Van



Figure 24. XM656

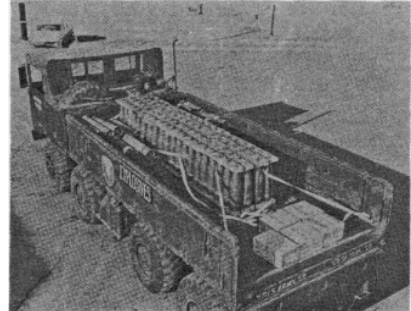


Figure 25. XM656 showing 155-mm ammunition load

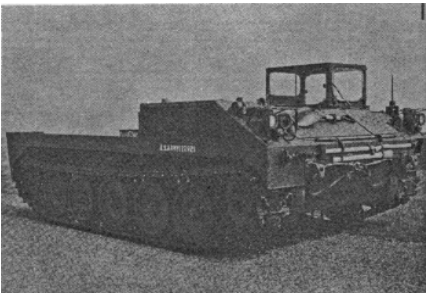


Figure 26. XM474E2

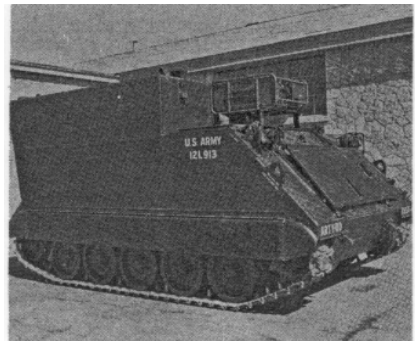


Figure 27. XM577

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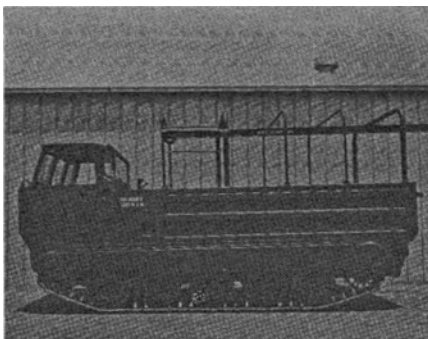


Figure 28. XM548



Figure 29. Pershing missile unit —XM474E2 tracked vehicles



Figure 30. XM553

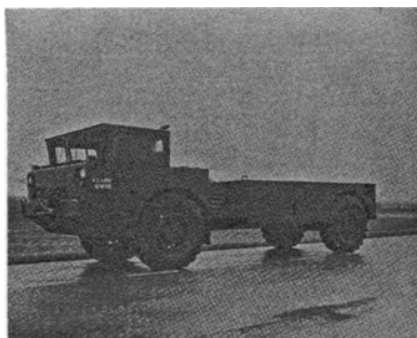


Figure 31. XM520E1



Figure 32. M109 How with flotation kit

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TABLE IVA. FIXED-WING AIRCRAFT

Aircraft	O-1A, E Bird Dog	U-6A Beaver	U-1A Otter	CV-2B Caribou	OV-1A Mohawk	OV-1B Mohawk	OV-1C Mohawk	U-8F Seminole
Purpose	Recon; Observation; Trainer; Radio Relay; Radiological survey; Wire Laying; Message drop	Personnel Cargo transport; Recon photo duties; Resupply; Medical evacuation; Wire laying	Personnel; Cargo; Transport; Battlefield Illumination	Transport of specialized teams; Medical evacuation, Resupply	Close combat surveillance	Close combat surveillance	Close combat surveillance	Command Liaison Transportation
Max allowable gross weight (1)	2,400	5,100	8,000	28,500	14,722	15,795	14,823	7,700
Crew	1 (plus AOBSR)	1 (2 for IFC)	1 (2 for IFC)	3	1 (plus AOBSR)	1 (plus Rad Op)	1 (plus IR Op)	1 (2 for IFC)
Payload w/full fuel (pounds)	382	992	1,600	6,860	NA	NA	NA	590
Max fuel cap gal	42	95	216	828	Int: 297 Ext: 300	Int: 297 Ext: 300	Int: 297 Ext: 300	230
Cruise speed (kts)	87	109	105	157	200	200	200	150
Endurance at cruise speed not incl 30 min res (hrs/min)	3/30	5/45	6/50	7/30	2/08	1/51	2/01	6/15
Max cargo sp (cubic ft)	NA	125	293	1,150	NA	NA	NA	158
Special equipment available	Camera still picture - KA-39A	Camera still picture - KA-39A; 2 litters	Camera, still picture - KA-39A; 6 litters	20 liters	Camera still picture - KA-30A	Camera still picture - KA-30A; AN/APS-94 SLAR	Camera still picture - KA-30A; Infrared detector AN/UAS-4	NA
Troop seats	1 (AOBSR)	5	10	32	0	0	0	5

(1) Weight includes aircraft, crew, equipment, fuel, and oil.

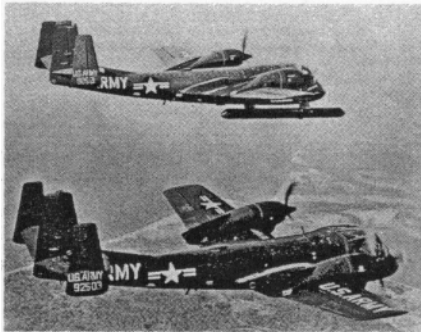


Figure 33. Mohawk



Figure 34. Caribou

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TABLE IVB. ROTARY WING AIRCRAFT

Aircraft	OH-13S Sioux	OH-23G Raven	CH-47A Chinook	CH-37B Mojave	UH-1D Iroquois	UH-1B Iroquois	CH-54 Skycrane
Purpose	Observation; Recon; Radiological survey; Wire laying	Recon; Observation; Radiological survey; Wire laying	Cargo and personnel transport	Cargo and personnel transport	Utility/tactical; Weapons aircraft; Transport cargo and personnel		Heavy lift
Max allowable gross weight	2,850	2,800	33,000	31,000	9,500	8,500	38,000
Crew	1	1	3	3	2	2	2
Payload w/full fuel load (lb)	400	400	10,924	6,197	2,102	2,540	14,470
Max recm ext load (pounds)	NA	NA	13,700	7,500	4,000	4,000	20,000
Max int fuel cap (gal)	43	46	630	406	220	165	892
Cruise speed (kts)	75	78	130	85	92-110	92-110	100 w/pod
Endurance at cruise speed not incl 30 min res (hr/min)	3/12	2/25	1/45	1/15	3/00	2/30	1/30
Max cargo sp (cubic ft)	NA	NA	1,462	1,252	220	140	2,680
Special equipment available	M2 dual machinegun system; 2 liters	M2 dual machinegun system; 2 liters	24 liters	24 liters	XM3, 2.75" Rocket System; M5 Grenade Lchr, M6 Quad Machinegun (7.62mm); XM16, 7.62mm Quad Machinegun and 2.75 Inch Rocket System (7 rockets ea Pod); SS-11 Antitank Missile System; AN/UVS-1, VATL System; 3-6 liters		48 liters
Troop seats	1	2	33	23	11	7	68



Figure 35. Iroquois



Figure 36. Chinook